| FOR OFFICIAL USE O | NLY SS | 9.04/2 | U.S. DEPARTMENT OF Patent and Trad | |
|---|--|---------------------------------|---|---|
| | SEARCH RE | | M 11 DIS | |
| Examiner # (Mandatory): Z | 1-1 | | 1. | |
| 1 | , -20 | _ | | |
| Art Unit /654 Locati | | | | ` |
| Serial Number: 09/65 | | | | E-MAIL |
| Title of Invention Nove | I material | from Eck | lonia Cara | |
| Inventors (please provide full n | names): Bong-Ho | lee eta | l- | |
| | <u> </u> | وي چيون ۾ اڳ سال پيسين يه سانده | The same special supplies the same section of | |
| Earliest Priority Date: | 12000 | | | |
| Keywords (include any known | | explanation of initialisms | a : | |
| Tably Words (morado any anown | oynonymo regiony namocia, c | | | |
| | | | | |
| | en de la companya de | | | |
| | | | 2 2 | |
| | * | | | 3 ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| | | | | |
| | | | | |
| | and the second of the second o | | | |
| Search Topic: Please write detailed statement of | f the search topic, and the conc | ept of the invention. De | scribe as specifically as possible | e the |
| subject matter to be searched. De etc., if known. You may include | | | | authors, |
| | | | | |
| Please : | search th | e chemi | cal compou | |
| | | | - Compou | Ma |
| 0/0/ | . 1 / / |) | | |
| y Ga | in 1 Cati | ached)- | | |
| | | | | |
| | - | | | |
| | | -The | inks. | |
| | | | The same of the same | |
| | STAFF U | SE ONLY | | secured in the |
| Searcher: Shefman | Type of Searc | h Vendors | (include cost where applicable |). |
| Searcher Phone #: 3/8/4/ Searcher Location: | -,- : | . Sequence | STN | |
| Date Picked Up: | , , . | cture (#) | Questel/Orbit Lexis/Nexis | |
| Date Completed: 3/17/6.3 | | iographic | WWW/Internet | |
| Clerical Prep Time: | · | gation1 | In-house sequence systems (li | ist) |
| Terminal Time: | | text | Dialog Dr. Link | |
| | Oth | | Westlaw | |
| • | E. G. | | Other (specify) | (1) |



DATE: Thursday, March 13, 2003

| Set Name side by side | Query | Hit Count | Set Name result set |
|-----------------------|---|-----------|---------------------|
| DB = USP | T,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ | | |
| L6 | L4 not 12 | 18 | L6 |
| L5 | L4 not .2 | 42 | L5 |
| L4 | 11 and (extract\$4 or compound or material) | 42 | L4 |
| DB = USP | | | |
| L3 | 6384085.pn. | 1 | L3 |
| DB=USP | T,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ | | |
| L2 | L1 same (extract\$5 or compound) | 24 | L2 |
| L1 | Ecklonia cava or Ecklonia cave or kajime | 50 | L1 |

END OF SEARCH HISTORY

=> fil hcaplus FILE 'HCAPLUS' ENTERED AT 14:38:47 ON 17 MAR 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

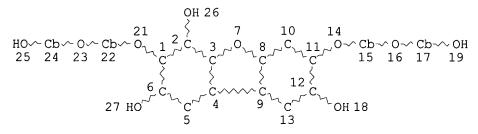
Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 17 Mar 2003 VOL 138 ISS 12 FILE LAST UPDATED: 16 Mar 2003 (20030316/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> =>

=> d stat que 14 L1 STR



NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES: RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE

L3 2 SEA FILE=REGISTRY SSS FUL L1

L4 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L3

=> =>

=> d ibib abs hitrn 14 1

L4 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS ACCESSION NUMBER: 2001:793438 HCAPLUS

DOCUMENT NUMBER: 135:335120

TITLE: Antioxidant dicavals A and B as dibenzofuran

derivatives and isolation of them from Ecklonia cava

Tate 09 629341

INVENTOR(S):

SOURCE:

Yi, Bon Ho; Che, Byong Wook; Yu, Kien Shik; Kim, Sang

Keun; Shin, Hyon Chul

PATENT ASSIGNEE(S):

Ventree Co., Ltd., S. Korea Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

APPLICATION NO. DATE PATENT NO. KIND DATE ______ ______ JP 2001-7406 20010116 JP 2001302655 20011031 KR 2000-22593 A 20000427 PRIORITY APPLN. INFO.:

The dibenzofuran derivs., dicaval A and B are isolated from crushed E. cava by extn. with org. solvents and fractionation. They are useful as antioxidants.

370553-48-3P, Dicaval A 370553-49-4P, Dicaval B RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(isolation of antioxidant dicavals A and B as dibenzofuran derivs. from Ecklonia cava)

=> => fil caold FILE 'CAOLD' ENTERED AT 14:39:22 ON 17 MAR 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1907-1966 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REG1stRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> =>

=> s 13

0 L3 L5

=> =>

=> fil reg FILE 'REGISTRY' ENTERED AT 14:39:26 ON 17 MAR 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file

Page 2

provided by InfoChem.

STRUCTURE FILE UPDATES: 16 MAR 2003 HIGHEST RN 499182-00-2 DICTIONARY FILE UPDATES: 16 MAR 2003 HIGHEST RN 499182-00-2

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> =>

=> d ide can 13 tot

L3 ANSWER 1 OF 2 REGISTRY COPYRIGHT 2003 ACS

RN 370553-49-4 REGISTRY

CN 2,4,6,8-Dibenzofurantetrol, 3,7-bis[3,5-dihydroxy-4-(2,4,6trihydroxyphenoxy)phenoxy]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Dicaval B

MF C36 H24 O19

SR CA

LC STN Files: CA, CAPLUS

PAGE 1-A

OH OH OH OH OH OH OH OH

PAGE 1-B

__ OH

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:335120

L3 ANSWER 2 OF 2 REGISTRY COPYRIGHT 2003 ACS

RN 370553-48-3 REGISTRY

CN 2,4,8-Dibenzofurantriol, 3,7-bis[3,5-dihydroxy-4-(2,4,6-trihydroxyphenoxy)phenoxy]- (9CI) (CA INDEX NAME)
OTHER NAMES:

CN Dicaval A

MF C36 H24 O18

SR CA

LC STN Files: CA, CAPLUS

PAGE 1-A
HO OH OH OH OH OH OH OH

PAGE 1-B

__ OH

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1962 TO DATE)

1 REFERENCES IN FILE CAPLUS (1962 TO DATE)

REFERENCE 1: 135:335120